

Amendments to the Claims:

This Listing of Claims will replace all prior versions and Listings of Claims in the application.

Listing of Claims:

1-24. (Cancelled)

25. (Previously Presented) A communication cable for transmitting data and other signals including a plurality of twisted pairs comprising:

each of the twisted pairs including two conductors each extending along a longitudinal axis, an insulation surrounding each conductor and at least one first channel in the insulation extending generally along the longitudinal axis to form an insulated conductor, wherein an outer peripheral surface of each conductor forms one side of the at least one first channel; and

wherein the cross-sectional area of the at least one channel in each insulation surrounding each conductor for a first of the twisted pairs is different than the cross-sectional area of the at least one channel in each insulation surrounding each conductor for a second of the twisted pairs to reduce delay skew between them.

26-30. (Cancelled)

31. (Currently Amended) A telecommunications cable comprising:

a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each defining a plurality of insulator channels having lengths that run generally along the lengths of the conductors, the insulator channels containing gas; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein the difference in transverse cross-sectional area is selected to reduce delay skew between the first and second wire pairs as compared to if the insulators corresponding to the first and second wires defined the same cross-sectional area as the insulator channels of the insulators corresponding to the third and fourth wires.

32. (Previously Presented) The telecommunications cable of claim 31, wherein the conductors have exterior surfaces that are exposed to gas within at least some of the insulator channels.

33. (Previously Presented) The telecommunications cable of claim 31, wherein at least some of the insulator channels are surrounded on all sides by the insulators.

34. (Previously Presented) The telecommunications cable of claim 31, wherein the first wire pair has a slower transmission speed than the second wire pair.

35. (Previously Presented) The telecommunications cable of claim 31, wherein the insulators include a polyolefin material.

36. (Previously Presented) The telecommunications cable of claim 31, wherein the insulators include a fluoropolymer material.

37. (Previously Presented) The telecommunications cable of claim 31, wherein inner sides of at least some of the insulator channels are bounded by exterior surfaces of the conductors.

38. (Previously Presented) The telecommunications cable of claim 31, wherein the gas within the insulator channels includes air.

39. (Previously Presented) The telecommunications cable of claim 31, wherein at least some of the insulator channels include open sides that face toward the conductors.

40. (Previously Presented) The telecommunications cable of claim 31, wherein the insulators have wall thicknesses less than about .01 inches.
41. (Previously Presented) The telecommunications cable of claim 31, wherein insulators have outer diameters less than about .042 inches.
42. (Previously Presented) The telecommunications cable of claim 31, wherein the first and second wire pairs are twisted together to form a core.
43. (Previously Presented) The telecommunications cable of claim 31, wherein the jacket includes a plurality of channels.
44. (Cancelled)
45. (Previously Presented) The telecommunications cable of claim 31, wherein the insulator channels contain only air.
46. (Currently Amended) A telecommunications cable comprising:
a jacket;
a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;
a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;
the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each including a first material defining a plurality of insulator channels, the first material having a first dielectric constant, the insulators also including a second material positioned within the insulator channels, the second material having a second dielectric constant, the second dielectric constant being lower than the first dielectric constant; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein at least some of the insulator channels have open sides that face toward the conductors.

47. (Previously Presented) The telecommunications cable of claim 46, wherein the conductors have exterior surfaces in contact with the second material within at least some of the insulator channels.

48. (Previously Presented) The telecommunications cable of claim 46, wherein at least some of the insulator channels are surrounded on all sides by the first material.

49. (Previously Presented) The telecommunications cable of claim 46, wherein the first wire pair has a slower transmission speed than the second wire pair, and the insulators of the first and second wires having a lower dielectric constant than the insulators of the third and fourth wires.

50. (Previously Presented) The telecommunications cable of claim 46, wherein the first material includes a polyolefin material.

51. (Previously Presented) The telecommunications cable of claim 46, wherein the first material includes a fluoropolymer material.

52. (Cancelled)

53. (Previously Presented) The telecommunications cable of claim 46, wherein the second material includes air.

54. (Previously Presented) The telecommunications cable of claim 46, wherein the first and second wire pairs are twisted together to form a core.

55. (Previously Presented) The telecommunications cable of claim 46, wherein the second material includes only gas.
56. (Previously Presented) The telecommunications cable of claim 46, wherein the second material includes only air.
57. (Previously Presented) The telecommunications cable of claim 31, wherein the insulators are extruded about the conductors through the use of an extrusion tip that includes a bore and a number of radially arranged grooves that extend along a longitudinal axis of the extrusion tip, wherein, during the extrusion process, the conductors are fed through the bore and the grooves create legs defined between the insulator channels of the insulators.
58. (Previously Presented) The telecommunications cable of claim 31, wherein a shape of at least one of the insulator channels is selected from the group consisting of rectangular, trapezoidal and arched.
59. (Previously Presented) The telecommunications cable of claim 31, wherein the telecommunications cable passes National Fire Prevention Association test 255.
60. (Previously Presented) The telecommunications cable of claim 31, wherein the telecommunications cable passes National Fire Prevention Association test 259.
61. (Previously Presented) The telecommunications cable of claim 31, wherein the telecommunications cable passes National Fire Prevention Association test 262.
62. (Previously Presented) The telecommunications cable of claim 31, wherein the insulators are configured such that substantially no water invades the insulator channels when the insulators are submerged in water heated to 90 degrees C for 30 days.
63. (New) A telecommunications cable comprising:
a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each defining a plurality of insulator channels having lengths that run generally along the lengths of the conductors, the insulator channels containing gas; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein the conductors have exterior surfaces that are exposed to gas within at least some of the insulator channels.

64. (New) A telecommunications cable comprising:

a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each defining a plurality of insulator channels having lengths that run generally along the lengths of the conductors, the insulator channels containing gas; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein inner sides of at least some of the insulator channels are bounded by exterior surfaces of the conductors.

65. (New) A telecommunications cable comprising:

a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each defining a plurality of insulator channels having lengths that run generally along the lengths of the conductors, the insulator channels containing gas; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein at least some of the insulator channels include open sides that face toward the conductors.

66. (New) A telecommunications cable comprising:

a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each defining a plurality of insulator channels having lengths that run generally along the lengths of the conductors, the insulator channels containing gas; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein the insulators have wall thicknesses less than about .01 inches.

67. (New) A telecommunications cable comprising:

a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each defining a plurality of insulator channels having lengths that run generally along the lengths of the conductors, the insulator channels containing gas; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein insulators have outer diameters less than about .042 inches.

68. (New) A telecommunications cable comprising:

a jacket;

a first wire pair positioned inside the jacket, the first wire pair including a first wire and a second wire, the first and second wires being twisted about one another;

a second wire pair positioned inside the jacket, the second wire pair including a third wire and a fourth wire, the third and fourth wires being twisted about one another;

the first, second, third and fourth wires each including a conductor and insulator surrounding the conductor, the insulators each including a first material defining a plurality of insulator channels, the first material having a first dielectric constant, the insulators also including a second material positioned within the insulator channels, the second material having a second dielectric constant, the second dielectric constant being lower than the first dielectric constant; and

the insulator channels of the insulators corresponding to the first and second wires defining a larger transverse cross-sectional area than the insulator channels of the insulators corresponding to the third and fourth wires, wherein the conductors have exterior surfaces in contact with the second material within at least some of the insulator channels.